WE CLAIM:

1. An adjustable well screen assembly comprising:

a pipe which is connectable to a production pipe, wherein said pipe comprises a hole extending from the ID of the pipe to the OD of the pipe;

a screen connected to said pipe adjacent the hole of said pipe

a valve connected to said pipe, wherein said valve controls fluid flow through the hole of said pipe;

a valve motor mechanically connected to said valve, wherein said valve motor opens and closes said valve; and

valve controller communicatively connected to said valve motor, wherein said valve controller instructs the valve motor as to a configuration of the valve.

2. The well screen assembly of claim 1 wherein the controller is connected to the valve via a communication means utilizing an electrical cable.

3. The well screen assembly of claim 1 wherein the controller is connected to the valve via a communication means

utilizing an optical fiber.

4. The well screen assembly of claim 1 wherein the controller is connected to the valve via a communication means utilizing a hydraulic cable.

5. The well screen assembly of claim 1 wherein the controller is connected to the valve via a communication means utilizing a pneumatic cable.

6. The well screen assembly of claim 1 further comprising a data sensor communicatively connected to the well screen

7. The well screen assembly of claim 1 further comprising a data transmitter communicatively connected to the well screen.

8. The well screen assembly of claim 1 further comprising at least one data recorder communicatively connected to the well screen.

9. A method for controlling flow through a formation and a pipe within a formation, the process comprising the steps of:

providing a pipe within a formation wherein the pipe comprises at least one hole extending from the ID of the pipe to the OD of the pipe;

connecting a screen to the pipe adjacent to the at least one hole of the pipe;

providing a valve to the pipe, wherein the valve is

effective to control fluid flow through at least one hole of the pipe; and

providing a controller effective to adjust the position of the valve.

10. The method of claim 9 wherein the controller is operatively associated with the valve by an electrical cable.

11. The method of claim 9 wherein the controller is operatively associated with the valve by an optical fiber.

12. The method of claim 9 wherein the controller is operatively associated with the valve by a hydraulic cable.

13. The method of claim 9 wherein the controller is operatively associated with the valve by a pneumatic cable.

14. The method of claim 9 further comprising the step of providing a data sensor communicatively connected to the well screen.

15. The method of claim 9 further comprising providing a data transmitter communicatively connected to the well screen.

16. The method of claim 9 further comprising providing a data recorder communicatively connected to the well screen.

17. An adjustable wellscreen comprising:

a base pipe defining a path for fluid communication to a

production tubing;

a screen section effective to exclude sand from fluid flow through the screen section, the screen section essentially surrounding at least a portion of a length of the base pipe;

a volume between the screen section and the base pipe through which fluids that have flowed through the screen section may flow;

at least one valve effective to provide controllable communication between the volume between the screen section and the base pipe and the volume within the base pipe;

at least one valve motor effective to change the position of the valve;

at least one sensor effective to determine a physical condition of fluids near the screen section and to provide a signal indicative of that physical condition; and

a controller effective to command the valve motor to change the position of the valve in response to the signal from the sensor.

18. The wellscreen of claim 17 wherein the sensor detects pressure differential across the screen section.

19. The wellscreen of claim 17 wherein the sensor detects the

presence of water.

20. The wellscreen of claim 17 wherein the sensor detects the temperature of fluids flowing through the wellscreen.

21. The wellscreen of claim 17 wherein the sensor detects the phase of fluids passing through the wellscreen.

22. The wellscreen of claim 17 wherein a screen section is located above and below the valve, and fluid flow through both the screen section above the valve and the screen section below the valve flow through the volume between the base pipe and the screen section toward the valve.

23. The wellscreen of claim 22 wherein the screen section located above the valve and the screen section located below the valve have essentially the same lengths.

24. The wellscreen of claim 17 wherein the pressure drop for fluids flowing through the screen section will be greater than pressure drop of the fluids flowing from the screen sections to the valve through the volume between the base pipe and the screen section.

25. The wellscreen of claim 17 wherein the sensor communicates with the controller using wireless communication.

26. The wellscreen of claim 17 wherein the controller communicates with the valve using wireless communications.

27. The wellscreen of claim 17 wherein the valve is powered by an electrical power supply and the sensor communicates with the valve using a time varing electrical signal imposed upon an electrical power supply to the valve.